Highlighting the U.S. Army's Chemical Demilitarization Program

Reach

Edgewood

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Contact Us

Edgewood Chemical Stockpile Outreach Office

1011 B Woodbridge Center Way Edgewood, MD 21040 (410) 676-6800

Outreach Office Hours

Monday–Friday 8:30 a.m.–5 p.m. Other hours by appointment

U.S. Army Aberdeen Chemical Agent Disposal Facility Public Affairs Office (410) 436-5253

Bechtel Aberdeen Public Outreach Office (410) 436-9504



U.S. ARMY CHEMICAL MATERIALS AGENCY

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Children learn about safety and mustard agent destruction at ABCDF's Take Your Sons and Daughters to Work Day

Eliminating the mustard agent stockpile at Aberdeen Proving Ground is not a typical job for children to learn about on Take Your Sons and Daughters to Work Day, but then the mothers and fathers who work at the Aberdeen Chemical Agent Disposal Facility, or ABCDF, do not have typical jobs.

On April 22, 15 school-aged children of ABCDF employees learned first-hand what their parents do at the ABCDF. Instead of learning about how things are made, patients are treated, or forms are processed-- the more typical subjects of Take our Sons and Daughters to Work Day-- the children of ABCDF employees learned how ton containers of mustard agent are moved and drained and how the mustard agent is safely destroyed.

They learned that it's always "Safety First" at the ABCDF.

Edgewood Chemical Activity/ABCDF Commander Lt. Col. Gerald L. Gladney welcomed the children to the April event. "We're so glad to have you here today. It's an excellent opportunity for us to explain the vital mission your parents perform for this community and this great nation on a daily basis." He added, "It's also an opportunity to ask questions and see how what you learn in school opens the door to a number of exciting careers."

The children asked, "How do you take away the chemicals?" "Are all of the chemicals stored here?" "Is it safe?"

"Safety is our primary focus here at the ABCDF," said ABCDF Safety Manager Jerry Ray. He told the children, "Hazards can be found everywhere, but if we think before



Ten-year old Shane Evans conducts his own radial chromatography experiment during ABCDF's Take Your Sons and Daughters to Work Day.



D.J. Kopp, 11, and Alexandra Ruggles, 6, look on while ABCDF Laboratory Analytical Branch Manager Hal Garber demonstrates how to use radial chromatography to separate a drop of ink into its individual color components using diluted alcohol and a coffee filter.

we act and protect ourselves, many of those potential hazards can be avoided." Ray explained how the Army works to protect their parents. "Our goal is to make sure that when your mom and dad come to work everyday, they are safe and are able to return home to you."

Throughout the day, the children tried on many different kinds of safety equipment used at the facility such as Kevlar gloves, hardhats, goggles, face shields, earplugs, steel-toed boots and safety harnesses. They watched one of the workers put on a fully encapsulating protective suit with an air tank, and learned how on-site medical personnel continuously monitor workers to keep them safe.

Laboratory technicians also described how they ensure that there is no mustard agent left after each batch is neutralized in the facility's mixing tanks. The children practiced laboratory safety by wearing lab coats, gloves and safety goggles while they participated in several handson laboratory analyses.

"I didn't realize that the workers need to use all of this equipment just to stay safe," said six-year-old Alexandra Ruggles, daughter of Bechtel Aberdeen's Deborah Ruggles. Referring to the fully encapsulating 'moon suit' the workers wear in the agent neutralization area, she added, "It's amazing that they can work in that thing at all."

Eleven-year-old Evelyn James Feeney told her father as she was leaving, "Daddy, I think I finally understand what you do when you go to work."

Since operations began in March 2003, over 364 tons of mustard agent have been safely neutralized at the ABCDF.

Photo by Nanc

"I'm pleased we were able to implement a solution that meets the needs of the local community. Constructing a facility from concept to startup may sound simple, but consider that we started this project with a blank piece of paper in 1998. We had to budget the money, design the facility, complete environmental assessments and design reviews, obtain permits, clear the site and

—Lt. Col. Paul Fletcher, Program Manager for Non-Stockpile Chemical Materiel, during the ceremony.

finally, build it."

U.S. Army dedicates new facility designed to destroy chemical weapons

Munitions Assessment and Processing System to treat recovered munitions



Kevin Flamm, Program Manager for Elimination of Chemical Weapons, assists Lt. Col. Paul Fletcher, NSCMP Program Manager, with the unveiling of the dedication plaque for the Col. Garland M. White MAPS Facility during the ceremony on May 5.

The U.S. Army Non-Stockpile Chemical Materiel Program (NSCMP) dedicated its newest capability and first fixed facility to treat recovered chemical weapons during a ceremony at Aberdeen Proving Ground's (APG) Edgewood Area on May 5. The Col. Garland M. White Munitions Assessment and Processing System (MAPS) Facility is different from the Aberdeen Chemical Agent Disposal Facility (ABCDF) where APG's stockpile of mustard agent is currently being destroyed. The MAPS facility provides the Army and the community with an environmentally friendly alternative to open detonation for most recovered munitions.

During the ceremony, Lt. Col. Paul Fletcher, Program Manager for Non-Stockpile Chemical Materiel, noted, "Many individuals and organizations have been part of the MAPS team, contributing to the success of development and construction since the project began." Fletcher recognized numerous Army entities; citizens such as the Aberdeen Proving Ground (APG) Restoration Advisory Board members; regulators such as the Maryland Department of the Environment; and industry, such as the John C. Grimberg Construction Company.

"The cooperation of these organizations aided in the development and completion of the MAPS facility and represents a unique partnership between the Army and its stakeholders," Fletcher explained.

NSCMP is part of the U.S. Army Chemical Materials Agency (CMA), the world leader in programs to store, treat and dispose of chemical weapons safely and effectively. CMA Director Michael Parker, who spoke at the ceremony, said he recognized the value of the partnership between the Army and the community. The dedication ceremony featured remarks from Col. Robert J. Davis, Baltimore District Commander, U.S. Army Corps of Engineers. Dennis Schrader, Director of the Maryland Governor's Office of Homeland Security, who along with Kevin Flamm, Program Manager for the Elimination of Chemical Weapons, led the ribbon-cutting ceremony that marked the official dedication of the facility to Col. Garland M. White, the first commander of the U.S. Army Technical Escort Unit at APG.

Designed with safety and flexibility in mind, MAPS will process a variety of smoke and chemical-filled munitions including World War I-era British and French munitions. This flexibility translates into the ability to quickly and safely process recovered munitions to reduce the number of open detonations and reduce the strain on APG's available storage facilities here. Workers at the MAPS facility will drill each munition and drain chemical or smoke fill for treatment at the APG Chemical Transfer Facility. Explosives from the treated and drained munition then will be detonated within the MAPS burster detonation vessel. Testing of the system continues, with operations scheduled to begin in 2005. For additional information visit the NSCMP Web site at http://www.cma.army.mil.

ABCDF's Bechtel Aberdeen team assists with mustard agent disposal strategy in Utah

The discovery of mercury and mercury-contaminated sludge in approximately 1,000 of the mustard ton containers in storage at Deseret Chemical Depot (DCD) in Utah has prompted the U.S. Army's Chemical Materials Agency to give tentative approval for the Tooele Chemical Agent Disposal Facility's (TOCDF) systems contractor, EG&G Defense Materials, Inc., to move forward with its planned strategy to safely destroy DCD's mustard agent and munitions stockpile.

Under the proposed strategy, Bechtel Aberdeen, systems contractor at the Aberdeen Chemical Agent Disposal Facility, or ABCDF, will help EG&G implement a plan for processing DCD's mustard which, because of mercury contamination, cannot be safely destroyed or removed using TOCDF's existing incineration systems. URS Austin (Texas) and Washington Demilitarization Company, systems contractor at three incineration sites in Alabama, Oregon and Arkansas, also will assist with the strategy.

Generally, the mustard strategy initially involves sampling all mustard ton containers stored at DCD to determine

which contain mercury and which do not. The design of this comprehensive sampling effort already is underway.

Modifications to TOCDF will occur over an approximate two-year period. Unused equipment will be removed and replaced with systems and equipment needed to safely dispose of the "mercury tons," including a bulk drain station, neutralization/washout system and mercury filtration system for one of the two TOCDF liquid incinerators.

"It's a pretty significant effort and it will be the largest facility modification effort in an active chemical weapons disposal facility," said Gary McCloskey, EG&G vice president and general manager at the TOCDF, who led the strategy development. Potential final approval of the plan only can come through a formal permit modification process. Authorization must come from Utah's Division of Solid and Hazardous Waste, following a process that includes giving members of the public ample opportunity to provide comments on the proposal.

Stockpile Emergency Preparedness Exercise Sharpens Response Skills

Personnel from the Aberdeen Proving Ground (APG), Edgewood Chemical Activity and ABCDF will participate in an annual Chemical Stockpile Emergency Preparedness Program (CSEPP) exercise with officials from federal, state, and local emergency management agencies on August 4, 2004. Because safety of the community and the surrounding environment is a top priority, the Army partners with these agencies to evaluate and strengthen response activities in the unlikely event of a chemical stockpile accident.

The annual exercises are similar to fire drills conducted in schools and businesses and offer responders an opportunity to test plans, procedures, skills and equipment. "Each year we welcome this occasion to execute and prove-out plans created to ensure maximum protection to the public," said Linda Nogle, CSEPP program installation coordinator for APG.

At a glance - ABCDF stats as of July 12, 2004



Total Drained

More than 364 tons of mustard agent have been drained.



Total Neutralized

Of the drained mustard agent, more than 346 tons have been neutralized.

Hydrolysate Transport

Approximately **1,139,895** gallons of the neutralization byproduct, called hydrolysate, have been shipped for biotreatment to DuPont Secure Environmental Treatment at Chambers Works in

Deepwater, N.J.

of ABCDF's quarterly

Editors Note:

This Spring 2004 issue newsletter, Reach, will be the final issue. ABCDF's outreach team will instead provide the public with information on the project on a regular basis through Progress Update, using our Reach mailing list. Comments from our readers indicated that the community preferred receiving timelier information in a shorter format. We welcome further comments from our readers on the kind of news about the project you would like to read and story suggestions.



APG's CSEPP coordinator receives governor's citation

Since 1985, when the Chemical Stockpile Emergency Preparedness Program (CSEPP) was created, professionals from various state and local emergency management agencies have been working to make sure that the surrounding community is kept safe in the event of an accident.

Recently a few of the professionals were recognized for their efforts with the Governor's Citation from Maryland Governor Robert L. Ehrlich. Among those recognized was Linda Nogle of the Edgewood Chemical Activity.

The CSEPP program installation coordinator for Aberdeen Proving Ground since 1991, Nogle is responsible for synchronizing the efforts of the Federal Emergency Management Agency; the Maryland Emergency Management Agency; the Baltimore, Harford and Kent County emergency management agencies; and local agencies and services such as the APG police, medical, fire, public affairs and the US Army Technical Escort Unit.

"Coordinating representatives and activities from so many agencies is a hard job," said Edgewood Chemical Activity/Aberdeen Chemical Agent Disposal Facility commander Lt. Col. Gerald L. Gladney. "The recognition for Linda's efforts is well deserved, and we couldn't be more proud of her."

